

Pediatric Clinic – Monday 2/7/2011

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

وَبِهِ نَسْتَعِينُ

Convulsions

First time

Neonates → most used phenytoin

Pediatric → first drug of choice is diazepam

1. Diazepam

- Dose: 0.3-0.5 mg/kg/dose
- Trade names: **neuril, valpam** ⇒ 5mg/ml
- Dosage = **شرطة لكل كيلو**

If febrile convulsions → **المفروض ابدأ**

→ IV over 10 minutes

For **3 successive doses** if no improvement → **خش علي الي بعده**

2. Phenobarbitone

- Trade name: **sominelatte**
- Dose
 - Loading dose: 15-20 mg/kg/dose
 - Maintenance dose: 5mg/kg → used when convulsions is controlled
- Dosage:

Sominelatte = 40mg/1ml

عايز اخلي الميبلي فيه 10 ميللجرام

احل الامبول علي 3 سم --، 1سم / 10 ميللجرام

هدي **2 سم لكل كيلو في الاول**

و بعدها ب **10 دقائق** هدي علي 10 ميللجرام في الكيلوا

يعني هدي **1 سم / 1 كيلو كل 10 دقائق**

For **3 successive doses** if no improvement → **خش علي الي بعده**

3. Phenytoin

- Dose: 15-20 mg/kg/dose
- Trade name: **epanutin** → 250mg/5ml
Every 1ml = 50 mg
- أحل 1 سم في 4 سم**
- و بعدين هدي الاول **2 سم لكل كيلو كل 10 دقائق**
- و بعدها لو مفيش تحسن **1 سم / كيلو كل 10 دقائق**
- زي الي قبله
- Maintenance → 5mg/kg

For **3 successive doses** if NO improvement → خش علي الي بعده

4. Midazolam

- Loading dose: 0.1-0.2 mg/kg/dose
- Trade name: **dormicum** 5mg/1ml
- Dosage:
 - عايز اخلي 1 سم فيه 1 ميللجرام
 - أحل ال 1 سم في 4 سم**
 - كدة 1 سم يكفي 10 كيلو
 - يبقي الجرعة = **شرطة لكل كيلو**
 - لان الشرطة فيها 0.1 ميللجرام
 - shots بيتاخذ علي شكل
 - If not → infusion = 0.05 mg/kg/hour
 - المعادلة هي
 - الوزن × الجرعة × 24
 - او
 - امبول و احله في 100 سم محلول ملح**
 - وادي 1 سم / كيلو / ساعة**

First line therapy in convulsion is neuril but contraindicated in neonates

Antiepileptic

Depakine → first line in most of cases

2nd attack → لا ابداء الا بعد

EEG → prognostic value, determine site affected "frontal, temporal,..."

Depakine in all except

Partial complex seizures → tegretol [carbamazepine]

Infantile spasms (salaam attack) → ACTH

Rickets

Definition: failure of mineralization of Ca in bone

Causes:

- 1- **Breast feeding:** milk is deficient in Vit. D, Vit. K
From the 4th month → prophylactic dose of vitamin D
- 2- **Cow milk:**
 - Contraindicated in pediatric < less than 1 year
 - Cow milk allergy, ↑ type 1 D.M, ↑ bronchial asthma
 - High in phosphorus → ↓ Ca absorption
 - Micro-hemorrhage in intestine
 - Buffalo milk is contraindicated before 6 months
- 3- ↓ **Ultraviolet rays** exposure
- 4- ↑ **phytates** in foods → خضار مطبوخ جاهز

Clinical picture

العظم لا يوجد فيه الاسمنت الذي يمسكه

Early

- 1- Cupping, broadening: wrist joint
- 2- Craniotabes: ping pong skull
D.D from
Osteogenesis imperfecta → كل الدماغ و الواد هتلاقية مكسور رجله او ايده
Rickets → Parietal bone
- 3- Rosary beads: at costochondral junction
- 4- Marfan sign

Late

- 1- Box shaped skull
- 2- Pigeon chest
- 3- Harrison sulcus
- 4- Pot belly abdomen, visceroptosis, laxity of ligaments
- 5- Kyphosis, kyphoscoliosis
Kyphoscoliosis → Co2 narcosis, congenital hypoventilation syndrome
- 6- Legs: bowing, coxa valga

Investigations

X-Rays: on 2 wrists, 2 ankles

Active: cupping, frying, double periosteum, rarefaction

Healing

Healed

Serum Ca/ phosphorus level

Alkaline phosphatase

Treatment

Active Vitamin D

Therapeutic:

Stoother therapy

Devarol once 600,000 unit

الحقنة 200000 وحدة فهدى **3 حقن في نفس اليوم**

لمدة **15** يوم بعد الحقنة → **Oral Ca with it or 1 day before it**

To prevent hypocalcemia

Dosage: **Hical** 50-70 mg/kg/day

وبعدها (اي بعد اسبوعين) هعمل اشعة عادية تانية لو مكنتش كويسة ادي حقنة تانية و استنتي كمان اسبوعين

If good → healing rickets → oral Vitamin D

Therapeutic dose: 3000-5000 unit/day

Prophylactic dose: 400-600 unit/day

Trade name:

Decal 1000 unit/5ml → ه احسنهم

Vidrop: 100unit/drop

Pedical: 400 unit/5ml

Dosage:

15cm **decal** = 3000 unit → 5cm/8h **هدي 5سم كل 8 ساعات**

For 1 month **لمدة شهر واحد**

To avoid vitamin D toxicity [fever, rash, ↓ alertness, jaundice, flushing]

Prophylactic dosage: from 4th month to 1 ½ years

Decal **2cm/day**

Pedical **5cm/day**

Vidrop → **4 drops/day**

يتعرض للشمس وقت الشروق و قبل المغرب بساعة {وقت المغربية}

ياكل زيادي و جبنة نستون

قصة صغيرة قبل ما نخش في اللي بعده

It is said that the famous sophist *Protagoras* took on a student, *Euathlus*, on the understanding that the student pay *Protagoras* for his instruction after he had won his first case (in some versions: if and only if *Euathlus* wins his first court case). Some accounts claim that *Protagoras* demanded his money as soon as *Euathlus* completed his education; others say that *Protagoras* waited until it was obvious that *Euathlus* was making no effort to take on clients and still others assert that *Euathlus* made a genuine attempt but that no clients ever came. In any case, *Protagoras* decided to sue *Euathlus* for the amount owed.

Protagoras argued that if he won the case he would be paid his money. If *Euathlus* won the case, *Protagoras* would still be paid according to the original contract, because *Euathlus* would have won his first case.

Euathlus, however, claimed that if he won then by the court's decision he would not have to pay *Protagoras*. If on the other hand *Protagoras* won then *Euathlus* would still not have won a case and therefore not be obliged to pay.

The question is: which of the two men is in the right?

اللي عايز ترجمة بالعربي يقول

بس يا جماعة ده انتوا اعلي اي كيو في مصر

سبيك و خش علي الي بعده

Antipyretic

1- Paracetamol

- Safe from 1st day of life
- Not effective if fever is > 38 c → as it work in peripheral PG
- Dose: 10-15 mg/kg/dose for 3-4 times /day
- Form/trade names/dosage
 - Drops
 - Cetal, pyral** 5mg/drop
 - القطارة = 1سم = 20 نقطة
 - 2 drops/kg/dose → **نقطتين لكل كيلو في المرة الواحدة**
 - Suppositories
 - Pyral** 125
 - Cetal** 125
 - Pyral** 250
 - In 125 → اللبوسة تكفي 12 كيلو في المرة الواحدة و ممكن تقسمها
 - Syrup [PAC]
 - a- **Pyral** syrup: 120 mg/5ml → 1cm = 2.5 kg → dosage = **WT/2**
 - b- **Abimol syrup**: 150mg/5ml → 30mg/1ml → 1cm = 3 kg → dosage = **WT/3**
 - c- **Cetal syrup**: 250mg/5ml → 50mg/1ml → 1cm = 5 kg → dosage = **WT/5**

- Tablets: **Cetal** 500 mg → نادر استعماله في الاطفال

2- Ibuprofen

- **Not before 1 year old** → ممنوع قبل سنة
- Dose: 10-15mg/kg/dose
- Forms/dosage/trade names
 - Drops **Flabu** نقطة لكل كيلو في المرة الواحدة
 - **Brufen** syrup: 100mg/5ml → 1سم يكفي 2 كيلو → dosage = **WT/2** (الوزن ÷ 2)
 - Suppositories: **macrofen** 100mg (for 10 kg) or 300 mg (for 30 kg)

3- Paracetamol + ibuprofen

Cetafen, megafen: 100 mg ibuprofen + 162.5 paracetamol → **WT/2** (الوزن علي 2)

4- Acetyl salicylic acid

- **Contraindicated in pediatric till 12 years old**
- Dose: 10-15 mg/kg/dose
- Only used is → **Aspegic** → central effect → pass blood brain barrier → on Amino acid Alanine متركب علي
- **Aspegic** 500mg/5ml → 1ml/100 mg → 1ml = 10 kg → **شرطة لكل كيلو**

5- Diclofenac Na

- Dose: 0.5-1 mg/kg/dose
- **Not safe before 1 year** → ممنوع قبل سنة
- Dosage/ forms/ trade names
 - Drops: **dolphin K** → نقطة لكل كيلو في المرة الواحدة
 - Suppositories: **dolphin, baby relief, adwiflam** 12.5 Or 25 or 50 mg
 - injection: **voltaren, dolphin, epifenac** 75mg/3ml
1cm = 25 kg
الشرطة = 2 كيلو
الوزن ÷ 2 لكل شرطة
Olfen 75mg/2ml
الوزن ÷ 3 لكل شرطة لكل جرعة

6- ketoprofen

- dose: 0.5-1 mg/kg
- trade name: **ketofan syrup**

7- nimesulide

- dose: 2-3 mg/kg/dose
- trade names/ dosage
Nimesulide, nilsid, nimalox → 50mg/5ml → **1سم لكل 2 كيلو**